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1995

*The Ninth Annual
Governor's
Pollution Prevention
Awards*

*Award Ceremony September 20, 1995
The Radisson Suite Hotel
Rosemont, Illinois*




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NINTH ANNUAL
GOVERNOR'S POLLUTION
PREVENTION AWARDS.

DATE DUE

**Waste Management and
Research Center
Library
One East Hazelwood Drive
Champaign, IL 61820
217/333-8957**

Ninth Annual Governor's Pollution Prevention Awards



The 1995 Governor's Pollution Prevention Awards are presented to honor businesses and other organizations in Illinois that have successfully reduced the generation of wastes and the use of toxic chemicals. These wastes include toxic air contaminants, wastewaters, infectious wastes, energy, plus hazardous and other industrial process wastes. By recognizing the outstanding achievements of these organizations in pollution prevention, it is our hope that others will be encouraged to do their share in preventing pollution at the source.

Since 1987, the Hazardous Waste Research and Information Center has worked with the Governor's Office and the Illinois Environmental Protection Agency to recognize outstanding pollution prevention efforts in our state. By adopting pollution prevention strategies, it has been shown that businesses can increase the efficiency of their operations and reduce their impact on the environment. Organizations are recognized in the following categories: trade organizations, educational institutions, vendors, community, and small, medium, and large industries.

Ninth Annual Governor's Pollution Prevention Awards

Educational Category



University of Illinois at Chicago (UIC)

The University of Illinois at Chicago employs 10,000 staff and faculty members. The UIC has continued its successful Chemical Redistribution Program through its Environmental Health and Safety office. The program is an exchange service which allows chemical users at UIC to receive or donate high quality chemicals that would otherwise become a waste. Since 1991 this program has saved the UIC over \$42,000 in chemical and waste disposal costs. UIC has shared its success with other college campuses throughout the nation and has provided Chicagoland private schools and companies with information about the redistribution program.



Elgin Community College (ECC)

Elgin Community College is a northeast Illinois college with 678 employees and a full-time student enrollment of 5,358. ECC's award-winning recycling program has already exceeded its goal of 60% waste reduction by the year 2000. Their waste reduction plan has saved the college over \$13,000 a year in waste avoidance costs and netted \$2,500 from the sale of aluminum cans. By recycling cardboard in lieu of burning it, ECC has eliminated the use of its incinerator. ECC is in the process of converting their centrifugal chiller to a CFC-123 refrigerant to eliminate the need to use R-11 freon. The college's recycling program has helped the environment by diverting 78 tons of waste paper per year from the landfill. This equates to 1,255 cubic yards per year of landfill space or a savings of approximately 1,326 trees. ECC credits their waste hauler as being instrumental in the waste reduction plan.

Small Industrial Category

(1-50 Employees)



Amoco Chemical Co. - Willow Springs

The Willow Springs Plant is a polystyrene manufacturing facility, producing approximately 62 million pounds of polystyrene in 1994. Amoco eliminated 83,204 pounds of hazardous waste generated at this plant through segregation, reuse, and product elimination. A change in operating procedures segregated styrene

condensate from used oil which had produced 10,500 gallons of hazardous waste per year. The used oil, shipped to another Amoco plant, is now fuel blended in an industrial boiler. The styrene condensate is now managed with the rest of the styrene from the plant and sent to another Amoco facility for use as a raw material. The operation reduces Amoco's hazardous waste production by 215,000 pounds and returns approximately \$20,000 per year in high value components converted from the styrene condensate. New equipment was installed in the plant's laboratory to eliminate the use of solvents in testing procedures. Amoco also switched parts washing equipment vendors and now uses a vendor that sells the used solvent from the parts washer to another company that uses the solvent as a substitute for a raw material. Amoco has expanded its recycling program and achieved a 33% reduction in solid waste collection. Amoco uses employee teams to develop plans to minimize waste streams within their area of responsibility and awards employees for their best environmental ideas or projects.



Central Illinois Light Company (CILCO)

CILCO is a producer of electrical power, servicing numerous central Illinois communities. CILCO utilizes coal-fired boilers and natural gas to supply the energy needs of its customers. The company has

successfully established the Gas Desulfurization Material Reuse Program to eliminate one of the waste streams from its Lincoln Gas Storage Field. Through this program and the Stretford process, CILCO strips natural gas stored underground of absorbed hydrogen sulfide which is collected as a sulfur sludge material. After a feasibility study, they determined that the

sulfur sludge from Lincoln could be mixed with a limestone slurry used at CILCO's Duck Creek Power Plant to scrub sulfur oxide (SO_x) emissions from the power plant's smoke stack. As a result, this company eliminated 36,000 gallons per year of an Illinois Special Waste and prevented 30 cubic yards of special waste from entering the landfill annually. CILCO's management philosophy emphasizes the reduction and elimination of pollutants and waste through employee programs such as "Bravo Bucks," which monetarily recognizes employees for their efforts and innovative ideas. By communicating their pollution prevention values to the local community, CILCO has contributed to increased environmental awareness in several Illinois counties.

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Medium Industrial Category

(150-500 Employees)



3M Cordova

3M, a specialty adhesive chemical manufacturer, produces adhesive backing and magnetic oxide at their Cordova plant. 3M Cordova significantly reduced discharge of ammonium sulfate, an aquatic toxin, to the Mississippi River and totally eliminated the use of ammonium hydroxide. The company reformulated their magnetic oxide process, which produced the ammonium sulfate by-product. The reformulation uses sodium hydroxide and was the result of a group effort on the part of 3M's R&D laboratories, pilot plants, manufacturing, design engineering, and the magnetic oxide coating facility. The new formulation produces a less toxic by-product, sodium sulfate. Additionally, 3M reduced their ammonia gas emissions by approximately 17,000 pounds per year. Through the company's Pollution Prevention Pays (3P) Program employees have developed and implemented numerous projects such as the one discussed here. Although the payback period for the magnetic oxide project was high, 3M did achieve a cost avoidance of \$12 million for the installation of an ammonia concentration removal system and saved an additional \$2 million in yearly operating expenses.



Stepan Company

The Stepan Company is a manufacturer of polymers and surfactants used in wallboard for the housing industry. Stepan Company implemented a pollution prevention project that modified their process for the

distillation of crude phthalic anhydride. Their previous process generated phthalic anhydride lite-ends, a listed hazardous waste. Stepan's new process combines the waste phthalic anhydride lite-ends with pure phthalic anhydride, as a feed stock, to produce crude polyol. After the reaction process is complete the crude polyol is shipped as a polyester polyol which is used in the manufacturing of wallboard. Stepan Company's new process has eliminated 52% of their hazardous wastestream. The reuse of this chemical waste coupled with the savings in raw material purchases has saved Stepan Company \$68,000 in 1994. Stepan plans to reuse 100% of their waste phthalic anhydride in 1995 and projects a savings to the company of \$130,000 per year. It was through management commitment and employee quality work groups that Stepan Company was able to eliminate a hazardous wastestream. In the future, Stepan Company plans to work with other producers of distillation light-ends to reuse their waste to produce a usable product.



UOP McCook Plant

The UOP McCook Plant manufactures a variety of anti-ozonants and anti-oxidants for the petroleum and rubber industries. This company has successfully upgraded their manufacturing process through

continuous improvement. UOP sought and found a more suitable catalyst for their chemical reaction process and coupled the material substitution with a better process control system. The new control system allowed plant operators to better monitor the process and control the temperature of the reactor. Tighter process control improved product quality, decreased production of waste, and segregated the waste from the recyclable materials. Including the profits generated, UOP saved approximately \$44,000 from the additional product manufactured and from savings on waste disposal costs. A project payback period of 3 years was established, including a reduction in maintenance costs, lower labor costs, quicker product turn around times, and fuel savings as justification. UOP also eliminated a RCRA waste by

changing their vendor of p-nitroaniline (PNA) to a vendor who supplied PNA in drums that did not use an inner liner. This change saved the company \$6,700 and eliminated about 1,000 pounds of drum liners previously disposed of as hazardous waste. Future UOP management plans include expanding the waste cost allocation system and investigating reduction in water usage.



Amoco Chemical Company - Joliet Plant

The Joliet Plant is an organic chemical manufacturing facility. The plant produces purified isophthalic acid (IPA), maleic anhydride (MAN), trimellitic anhydride (TMA), and polystyrene. Amoco Chemical's manage-

ment goal to reduce wastes and emissions was highly successful in 1994. The plant implemented several process changes in the IPA unit that cut their disposal of benzene and moisture-contaminated activated alumina used to dry the IPA gas stream by 50%. The Amoco polystyrene production unit uses a Condensate Recovery Unit (CRU) to condense styrene for reuse within the polystyrene unit. About 16% of the total styrene condensate from the plant is collected and sent to another Amoco facility for use as a raw material where it is processed into a pound of gasoline for every pound of styrene. The CRU operation has saved Amoco about \$150,000 per year in waste disposal costs and \$150,000 per year by converting the styrene condensate into high value components. Amoco also switched parts washing equipment vendors and uses a vendor that sells the used solvent from the parts washers to another company as a substitute for a raw material. This change reduced Amoco's hazardous waste generation by 61%. Additionally, the plant has reduced its Volatile Organic Matter (VOM) generation by 70 tons per year by retrofitting one of their thermal oxidizers with two catalyst modules to destroy pollutants emitted to the air. Amoco has also implemented numerous programs that add value to their pollution prevention activities such as a flex-time work option to reduce auto emissions, use of recyclable metal containers, recycling of polyethylene shrink wrap and unusable polystyrene material, and education of their employees. The economic benefits of all these projects and programs have earned Amoco, through either cost reduction, cost avoidance, or profit, a total of approximately \$570,000 in 1994. Amoco hopes to increase this savings in 1995 by totally eliminating some of the wastes described above.



Eaton Corporation

The Eaton Corporation is a fabricator of automobile and appliance controls and automobile components. Eaton Corporation progressively converted or improved their overall elimination of solvent degreasing operations, culminating in 1994 with the final installation of new parts cleaners and washers. Through the following equipment change-outs, Eaton achieved its goal of source reduction in chlorinated solvents. A study of part types, oils, contaminants, and levels of cleanliness was implemented and from that study several techniques and machines were developed. A 10 cubic foot barrel type machine, a 0.5 cubic foot small basket type machine, and a 0.2 cubic foot capacity ultrasonic cleaner were selected for parts washing. The replacement alkaline wash solution produced no emissions and after neutralization was discharged to the sanitary sewer. The company realized a 57% decrease in their Volatile Organic Compounds (VOC) emissions in 1994 and a 65% reduction in their solvent wastestream. Eaton Corporation is committed to pollution prevention and maintains as their ultimate goal the replacement of all chlorinated solvents with alternative cleaners. Eaton's program of parts washer replacement has been evolutionary in nature and has provided hands-on experience which can be directly transferred to similar manufacturing operations.

Large Industrial Category

(> 500 Employees)



Chrysler Corporation - Belvidere

Chrysler Corporation Belvidere Assembly Plant produces the Plymouth Neon and Dodge automobiles. Plant operations include assembly, painting, stamping, fascia molding, and steam generation. Chrysler's Pollution Prevention Program is a cooperative effort between suppliers, after market users (recyclers), and production hourly and management teams. It was through the Small Car Platform Team and Chrysler's rag supplier, PPG, that results were achieved in eliminating solvents (xylene, toluene, acetone, and methyl isobutyl ketone) used to wipe

down the automobiles at various points within the facility. Chrysler reduced its solvent emissions from 1.6 pounds per car to 0.85 pounds per car. Chrysler also reduced their disposal of hazardous waste contaminated rags by 50%, saving over \$66,000 per year. In another area of the plant, Chrysler disposes of 7,000 pounds of broken windshields annually as lead contaminated (D008) hazardous waste. Chrysler worked through two of its suppliers to successfully eliminate the use of a window tinting compound that used a lead-base primer to tint the rear windshield. Chrysler's front windshield supplier was not able to fully eliminate the lead-based primer due to the critical nature of a seal on the front windshield. The vendor, however, was able to formulate a reduced lead content primer that would pass a Toxic Characteristic Leaching Procedure (TCLP) test for hazardous lead content. Chrysler no longer uses windshields that may be classified as hazardous waste and has saved over \$8,000 annually in hazardous waste disposal costs. The company also reuses and recycles plastic covers used by suppliers and has eliminated the landfilling of over 1.3 million pounds of plastic annually. Chrysler management believes that without overall team cooperation, programs such as the three noted above would not have been successful or even implemented.



Honeywell's MICRO SWITCH Division

MICRO SWITCH, a division of the Honeywell Corporation, manufactures electrical and electronic switches and sensors. The company has an evolving pollution prevention program that has implemented numerous changes throughout their facility. These include cadmium plating alternatives, nickel recovery from plating, mercury/glass separation, and painting waste reductions. Two other projects of note are MICRO SWITCH's Coolant Recycling Program and the Halogenated Solvent Elimination Program. In the Coolant Recycling Program, they utilize a Cimcool Full Cycle Module to increase the consistency of the coolant quality. The coolant recycling program has reduced their volume of hazardous waste by 87% and saved \$27,135 in reduced waste disposal and raw material costs annually. The Halogenated Solvent Elimination Program eliminated vapor degreasing operations using freon 113 and methylene chloride typically used to remove oils, waxes, and other soils. Elimination is being achieved through aqueous cleaning alternatives,

no-clean, non-halogenated solvent, and component material changes. Halogenated solvent use has been reduced by 20% with total elimination of halogenated solvent use projected by August 31, 1995. Approximately \$5,000 in disposal costs have been saved and \$100,000 in raw material costs have been avoided. The management at MICRO SWITCH is committed to reducing pollutants at their source through material substitution, product reformulation, process modification, and improved housekeeping. Through MICRO SWITCH's Pollution Prevention Task Team (P2T2), employees evaluate and select alternative processes for implementing in the manufacturing process.



Commonwealth Edison Company

Commonwealth Edison (ComEd) is a major supplier of electrical energy in northern Illinois. ComEd has expanded its Waste Minimization Program into an aggressive Life Cycle Management Program. The new

program includes final disposal considerations in the procurement process to help prevent the purchase of materials that may appear to be less expensive at first, but will ultimately result in more costly environmental impacts (such as hazardous waste generation). Through the Life Cycle Management Program, ComEd has reduced its waste generation by nearly 88% from 1992 levels. Waste oil generation was reduced over 60% in one year - from more than 2 million gallons in 1993 to 822,000 gallons in 1994. ComEd changed out their naphtha solvent parts washers with mineral spirits parts washers. Due to the use of hazardous solvents, 32 of ComEd's facilities were large quantity generators. Today, only 13 facilities are large quantity generators—ComEd's goal is to reduce this number to six by 1996. In 1994, ComEd recycled 549,000 tons or 71 % of the coal ash created as a by-product of the company's fossil fuel plants. The recycled coal ash can be used as a concrete additive for buildings or in highway construction. ComEd also recycled 17.3 million pounds of scrap metal from obsolete equipment, transmission system renovations, equipment replacement and demolition. The scrap metal is sent to the company's scrap house for processing and reuse in the metal fabrication industry. Additionally, the company has put back into service over 15% of electrical transformers earmarked for reclamation. ComEd has an outstanding management commitment and full employee support for all its waste minimization opportunities, making Life

Cycle Management an integral part of every employee's vocabulary. Implementation of this new program has saved ComEd over \$61,000 this year, and they anticipate the program will save them over \$2 million dollars in the coming year.

Caterpillar Inc. - Mossville Engine Center



The Caterpillar Mossville Engine Center machines, assembles, paints, and tests Caterpillar engines. The Mossville Center has eliminated its use of vapor degreasers using trichlorethylene (TCE). Caterpillar implemented a project to modify their production process to utilize a water-based wash solution fol-

lowed by a steam blow off to clean finished parts. The new washer system has eliminated over 25,000 pounds of TCE and saved \$30,000 in disposal costs, chemicals purchased and man-hours spent in maintenance. Additionally, Caterpillar estimates that it saved \$3.5 million dollars through their current Waste Minimization Program, an increase of 25% over 1993. Through management commitment and employee teams Caterpillar Mossville encourages their employees to get involved in recycling/environmental projects and programs. The elimination of vapor degreasing by Caterpillar is an outstanding example of a solvent substitution project that works and pays back, not only in profit but also in employee health and welfare.



Continuous Improvement Category

HWRIC has established a new category of recognition this year. It is designed to acknowledge the efforts of companies that have won awards and/or certificates in the past and who have continued to develop and sustain significant Pollution Prevention Programs. This award will note those programs or projects that surpass initial efforts to reduce waste or "pick low hanging fruit" which produce significant waste reduction quantities and large monetary savings. Although their projects over the last year may not have been significant enough in and of themselves to deserve an award, their efforts to continuously improve their operations are recognized by this award.



Caterpillar Inc. - East Peoria Facility

The East Peoria Caterpillar facility is a manufacturer of track type tractors, pipe layers and power shift transmissions. They have implemented a continuous improvement element to their Waste Minimization

Program. Caterpillar's methodology and approach to continuous improvement in waste minimization was several fold. The primary task was full evaluation of all processes in the facility. This involved breaking down the facility into 12 manufacturing commodities. Staff of each commodity then conducted their own review of chemicals, processes, and techniques used and reported them to an environmental impact committee. The committee compiled the reports and issued a Facility Waste Minimization Plan. The plan details a list of action items along with specific goals that can be measured. Some of the action items that were addressed included reduction in waste oil through implementation of an oil sampling program; elimination of mineral spirits usage throughout the plant; and a metal working fluids management program to maximize the functional life of the fluids. Caterpillar management is fully committed and supportive of this program and employee support is solicited through interviews that incorporate employee knowledge and ideas into the Facility Waste Minimization Plan. Economically, Caterpillar's new program has implemented Total Cost Assessment (TCA) into environmental programs. TCA looks not only at the cost of a material but at the life cycle cost which includes initial purchase price, disposal cost, and many other related costs.



Homeshield Fabricated Products

Homeshield Fabricated Products, a division of Quanex, manufactures fabricated metal into pre-engineered shapes for customers nationwide. In 1992 Homeshield formed employee problem-solving teams

to implement activities aimed at effectively eliminating raw material wastes and lowering waste disposal costs. 1994 saw Homeshield take their program one step further, creating a total pollution prevention program using work center teams to initiate and evaluate pollution prevention projects and provide rewards for employee participation. Their new program targeted environmental process efficiency, working cleaner, and working better. An automated chemical conductivity sensor and fluid level controller designed

within the company allowed new control over the levels of their chromate conversion bath chemicals and de-ionized make-up water levels—resulting in a \$5,000 per year savings in waste disposal costs and non-productive down-time. Homeshield also reduced their storage of 55 gallon drums of roll forming coolant by converting to 330 gallon bulk containers, realizing a cost savings of \$1,000 in the first year. Additionally, they improved the design of their packaging vehicle for Thermal Window spacers by using a reusable shipping container and eliminating the use of cardboard cartons. The new design will save 62,700 pounds annually in solid waste. Homeshield also substituted a concentrated aqueous-based cleaner for their newly purchased parts washer and will save \$105 annually over the cost of a vendor supplied parts washing system. An additional chemical substitution will lower their Hazardous Air Pollutant emissions by 98%. Homeshield substituted methyl propyl ketone (MPK) for methyl ethyl ketone (MEK) for use in their laboratory to test the relative degree of paint cure of their baked-on enameled finish process. Homeshield's management philosophy, goals, and strategies enable the company to remain competitive, environmentally conscious, and responsive to market trends.



Motorola Lighting Inc.

Motorola Lighting Inc. is a manufacturer of electronic ballasts. Their continued participation in Motorola Corporate's Worldwide Total Customer Satisfaction (TCS) team competition has honed employee skills in team processing, goal setting, and problem solving. Their "I Can Make a Difference" environmental health and safety employee recognition program also continues to emphasize the importance of individual efforts to program success. In 1994, Motorola Lighting, in a move that draws directly on the results of these two programs, undertook an initiative to integrate economic and environmental goals into their process. The elimination of Volatile Organic Compounds (VOC) from their entire ballast soldering process was implemented in two steps. Motorola was able to eliminate their use of an isopropanol (IPA) based flux after investigating and testing an approved water based flux agent to use on their printed circuit boards. They also eliminated the IPA used to clean the conveyor which moved circuit boards to a cleaning station. At the cleaning station Motorola substituted deionized water for IPA to clean the parts. As a result of these changes they reduced

VOC emissions from the factory by 95.5%, a reduction of 78.9 tons per year. Motorola's management and employee participation enabled their Total Process Improvement (TPI) Team to identify reachable goals and then complete the projects in a timely manner. This kind of team work is an example of Motorola's belief in employee and management participants working together to solve a problem.



Tellabs Operations, Inc.

Tellabs Operations, Inc. is a worldwide manufacturer and supplier of voice, data, and digital telecommunications equipment. Since 1988, they have been practicing continuous "Closed Loop" recycling of their process waste. In 1991 they joined the USEPA 33/50 Reduction Program which targets 17 priority chemicals for elimination from production processes. Prior to that an internal committee was formed to explore recycling opportunities throughout the operation. In 1994, Tellabs eliminated liquid hazardous waste from their new flux application project, the Waveline Enhancement Project. Tellabs reduced generation of liquid hazardous waste from 3,960 gallons per year to zero gallons per year by installing spray fluxers on all their waveline equipment. They also introduced the use of nitrogen into their waveline operations which reduced soldering consumption by 75% and saved them \$25,000 annually. The new process also reduced Tellabs' production of "dross," the lead oxide residue removed as a maintenance function, by 70%, from 27,000 pounds to 8,000 pounds per year. The overall savings from the Waveline Enhancement Project is \$76,140 in reduced raw material usage and waste disposal costs. Additionally, Tellabs saved \$7,280 through their Solid Waste Reduction Program. Their outstanding effort was successful because of the total support of employees and management. Tellabs' commitment to the environment goes beyond the reduction of waste and recycling. They have included natural prairie landscaping at their newest facility in Bolingbrook and made available to the community a jogging path through the facility grounds for residents to enjoy.

◆ HWRIC's Pollution Prevention Services ◆

The Illinois Hazardous Waste Research and Information Center, a non-regulatory agency, can help your company meet its pollution prevention or waste management needs in a number of ways. Answering questions via telephone, conducting on-site visits and evaluations, in-depth assessments as requested, and assistance with technology modifications through research in our engineering laboratories are among the services available from HWRIC. Staff engineers have industrial experience and are able to apply their "real world" knowledge to assist with overcoming problems in implementing pollution prevention programs, plans, or projects.

Pollution Prevention Program Development Assistance

- On-site presentations on methods to develop a pollution prevention program and increases staff awareness
- In-depth assessment to aid facility staff in identifying pollution prevention opportunities
- Work with facility management or staff to develop an action plan for incorporating pollution prevention into the company's way of doing business
- Train facility staff in pollution prevention concepts and techniques
- Provide case study examples from our database and extensive library
- Provide guidance manuals, reports, and factsheets on pollution prevention

Alternative Cleaners Evaluation Program

Manufacturing processes in many Illinois factories often include product cleaning steps. With restrictions on organic solvent use mandated by the Clean Air Act Amendments of 1990 and the targeting of 17 priority chemicals by USEPA's 33/50 voluntary reduction program, manufacturers are examining alternative cleaners. HWRIC investigates techniques designed to reduce or eliminate the use of hazardous solvents and offers businesses a detailed, unbiased examination of available cleaning alternatives.

Center staff have designed an efficient portable system to test a variety of cleaning products under a broad range of conditions. Industries interested in

participating in the solvents alternative testing program should contact HWRIC.

The goal of this program is to help businesses in Illinois comply with new regulations by identifying less toxic cleaning alternatives, assisting with process modifications to reduce wastes, and helping incorporate waste minimization/pollution prevention into all aspects of daily business operations. HWRIC's partner in this effort is the Illinois Department of Commerce and Community Affairs (DCCA) Small Business Environmental Assistance Program. DCCA and HWRIC will use their existing assistance programs to help companies address waste management problems while increasing productivity and competitiveness.

Process Efficiency Research and Development Assistance

- Evaluate equipment or techniques for specific processes. Projects can be conducted in HWRIC's pilot lab or on-site utilizing equipment available from the Center. Additionally, HWRIC maintains agreements with equipment suppliers so that many other equipment alternatives can be tested on a trial basis.
- Evaluate materials and material substitutions used in a specific process and their consequent effects on waste generation.
- Provide technical information to a company in order for them to evaluate modifying their waste generating processes in-house vs. using a vendor.

Chemical Process Laboratory

Waste handling costs can outweigh the benefits of simply maximizing product conversion when hazardous materials and traditional manufacturing chemistries are employed. A major focus of this laboratory is to modify chemical parameters to give the proper balance of yield and by-product formation. Often this requires the design of new "environmentally benign" processes. Significant waste reductions can also be obtained by recovering marketable by-products from existing process waste streams. This laboratory attempts to develop cost effective technologies at both ends of the manufacturing spectrum.

POTW Load Reduction Program

This program creates partnerships with POTWs (Publicly Owned Treatment Works) to assist users with the implementation of pollution prevention techniques. It provides assistance to POTWs in the following areas:

- compliance with environmental quality standards, including sludge disposal and toxic air emissions,
- reduction of influent contaminant transfers from wastewater to another environmental medium (e.g. land, air, surface or ground water),
- improvements in worker safety and reductions in exposure to toxic gases,
- reduction in sludge management costs,
- reduction of BOD, TSS, FOG, heavy metals, priority pollutants, hydraulic and slug loads, and
- maintenance of load levels that allow for projected demands for future sewer services.



Hazardous Waste Research and Information Center
One East Hazelwood Drive
Champaign, Illinois 61820
(217)333-8940

HWRIC Clean Manufacturing Program
3333 West Arthington
Chicago, Illinois 60624
(312)265-2185

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